

Patent Claims

Sub 1 1. Laser-markable plastics, characterized in that a plastic which is difficult to laser-mark comprises as absorber material an intrinsically laser-markable polymer in the form of micromilled particles having a particle size of 0.1 - 100 μm .

5 2. Laser-markable plastics according to Claim 1, characterized in that the absorber material is a high-temperature-resistant plastic.

10 3. Laser-markable plastics according to Claim 1 or 2, characterized in that the absorber material is polyphenylene sulfide, polysulfone, polyarylate, polyimide, liquid-crystalline polymers or a mixture thereof.

15 4. Laser-markable plastics according to one of Claims 1 to 3, characterized in that the proportion of the absorber material based on the plastics system is 20 0.1 - 10% by weight.

Sub 3 *B1 a* 5. Laser-markable plastics according to one of Claims 1 to 4, characterized in that the particle structure of the intrinsically markable polymer is retained in the plastic.

25 6. Laser-markable plastics according to one of Claims 1 to 5, characterized in that the absorber material additionally comprises as further absorber, one or more light-sensitive pigments.

a 7. Laser-markable plastics according to Claim 6, characterized in that the light-sensitive pigment is natural or synthetic mica, copper phosphate, a special-effect pigment, a conductive pigment, a metal nitrate, metal sulfate, metal sulfide or metal oxide.

30 8. Laser-markable plastics according to one of Claims 1 to 7, characterized in that the proportion of the light-sensitive pigments in the plastic is from 0 to 5% by weight, based on the plastics system.

Sub a *B2* 35 9. Laser-markable plastics according to one of Claims 1 to 8, characterized in that the plastic which

is difficult to laser-treat is polyethylene, polypropylene, polyamide, polyoxymethylene, polyester, methyl [sic] ~~polymethyl~~ methacrylate, polyurethane or a copolymer thereof.

5 10. Laser-markable plastics according to one of Claims 1 to 9, characterized in that they additionally comprise colour pigments.

11. Use of the laser-markable plastics according to Claim 1 as material for producing mouldings which are 10 marked with the aid of lasers.

12. Mouldings consisting of the laser-markable plastic according to Claim 1.

Not CS
Not D